

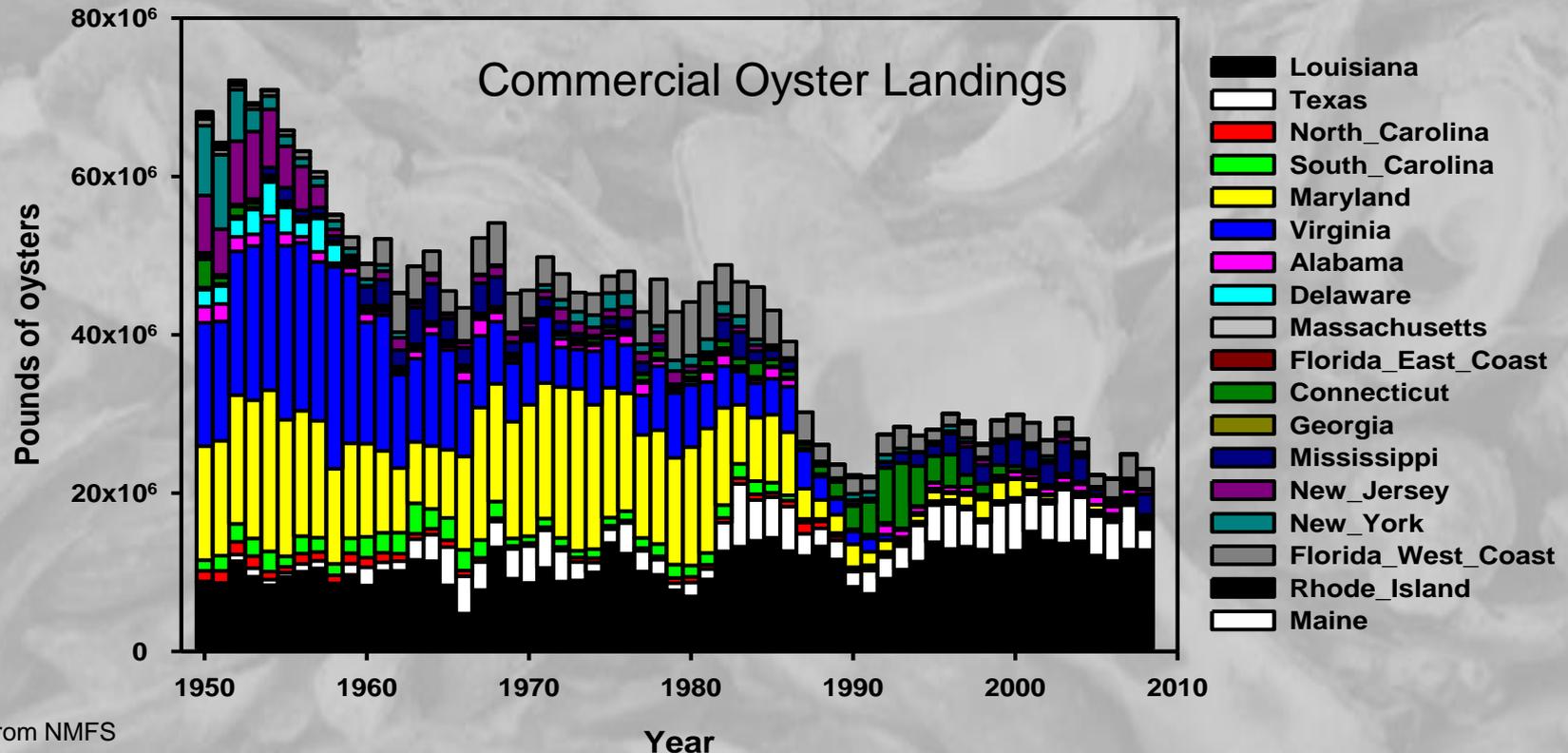


Jennifer Pollack, Gail Sutton & Brad Lomax



Why do we care about oysters?

- Texas is the 2nd largest U.S. oyster producer
 - Over \$19 million generated in 2007



Habitat

- Oysters provide high quality habitat for numerous fishes, shrimps & crabs



Spotted sea trout



Red drum



Sheepshead



Blue crab

Photo credits: scfishingreport.com, moldychum.typepad.com, bandgap.cs.rice.edu, laterallineco.com

Water Quality

- Oysters filter and clean bay waters, removing plankton, sediments, heavy metals, bacteria and other “wastes”

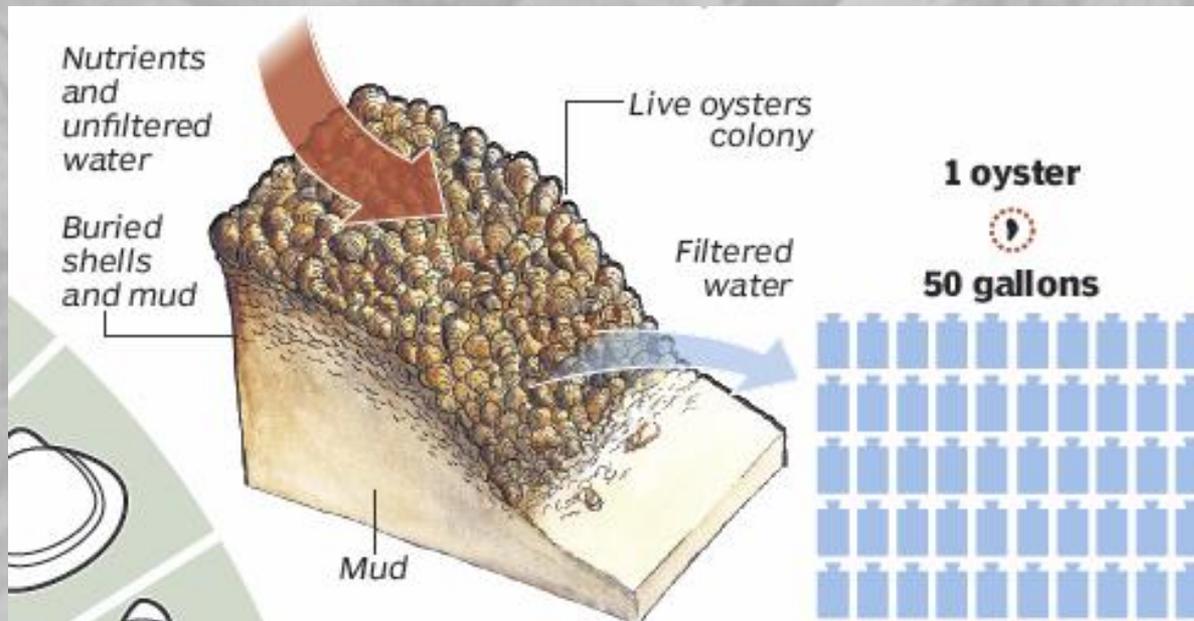


Photo credit: chronicle.com

Shoreline protection

- Oyster reefs protect shorelines from erosion



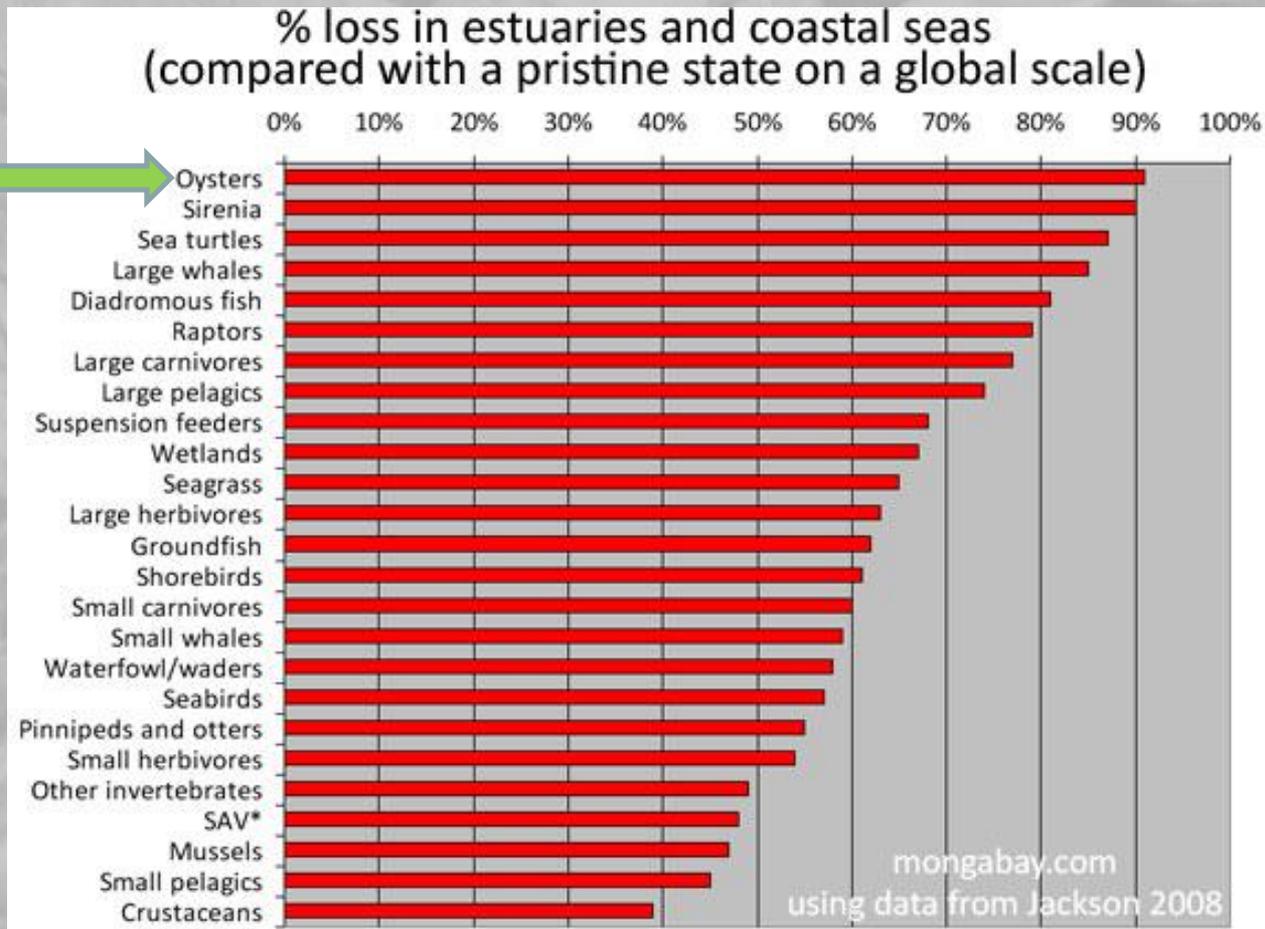
Photo credits: gcr.c.uga.edu, dep.state.fl.us

BEST OF BOTH WORLDS

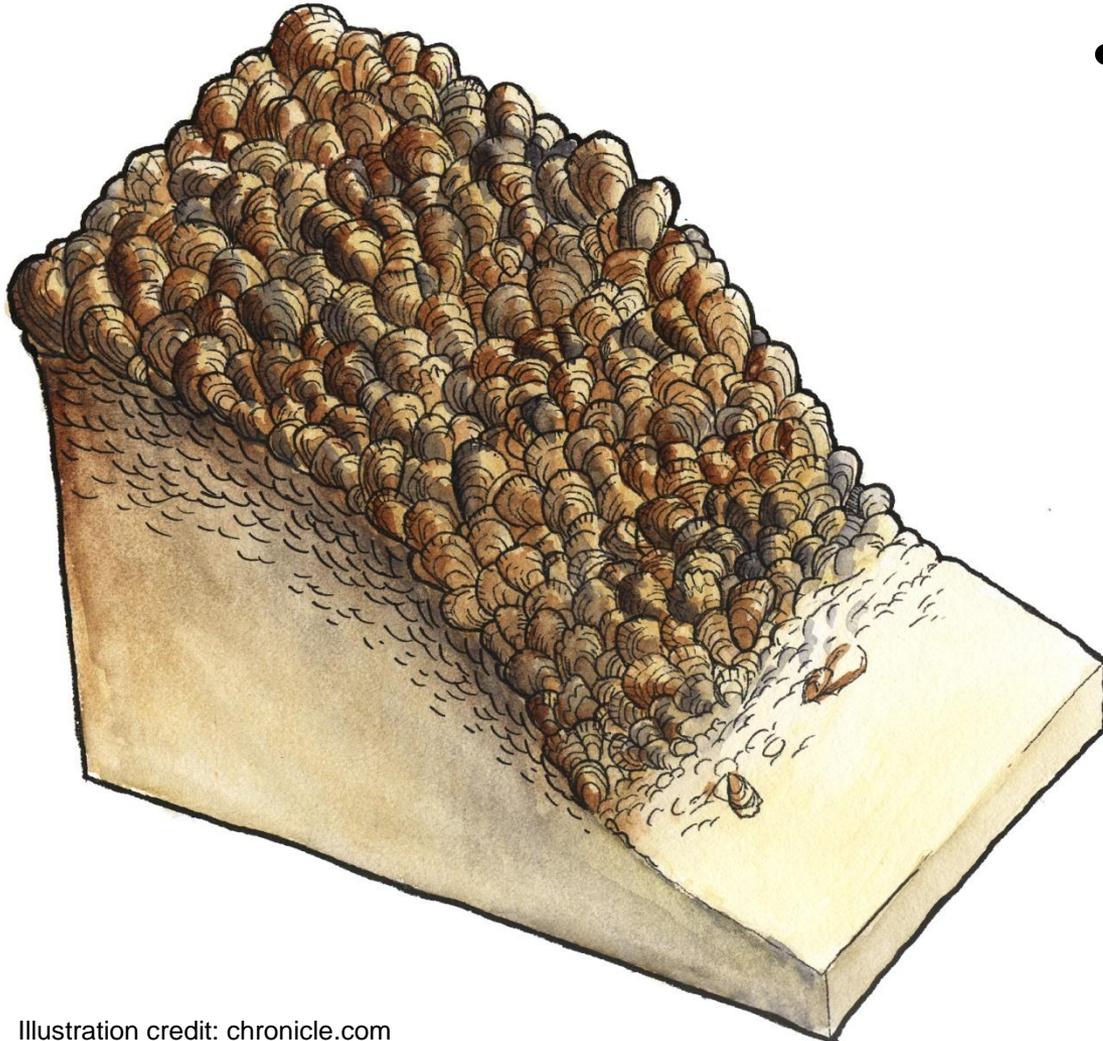


The problem

- Oysters are the most threatened marine habitat on earth

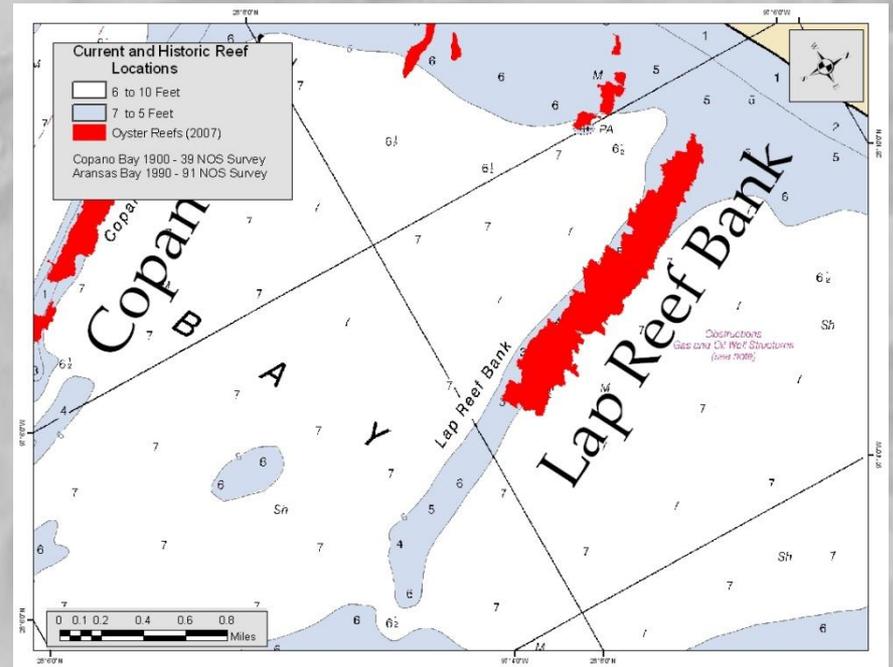
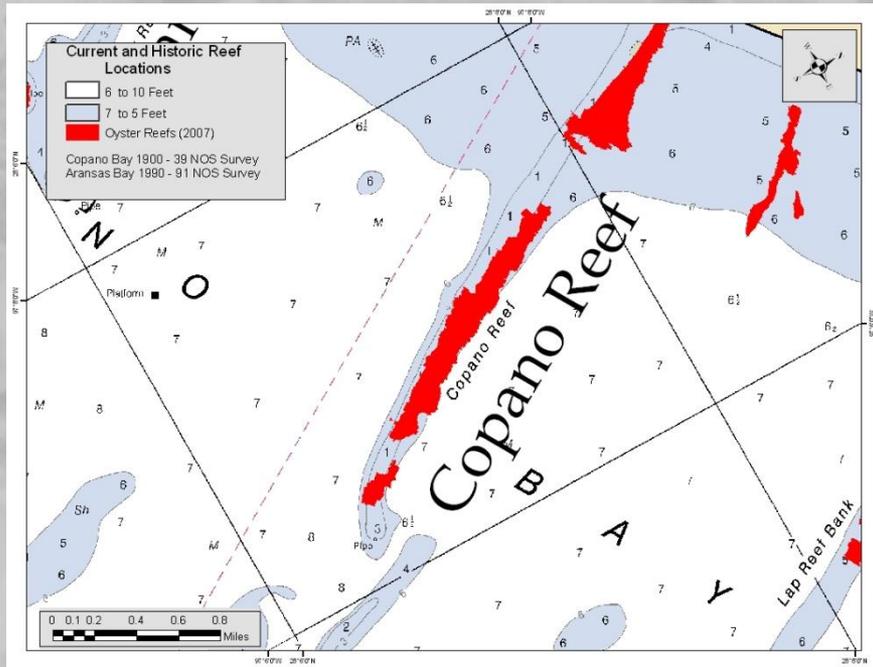


Where are all the oysters?



- Lost due to:
 - Poor water quality
 - Habitat destruction (shell dredging)
 - Disease

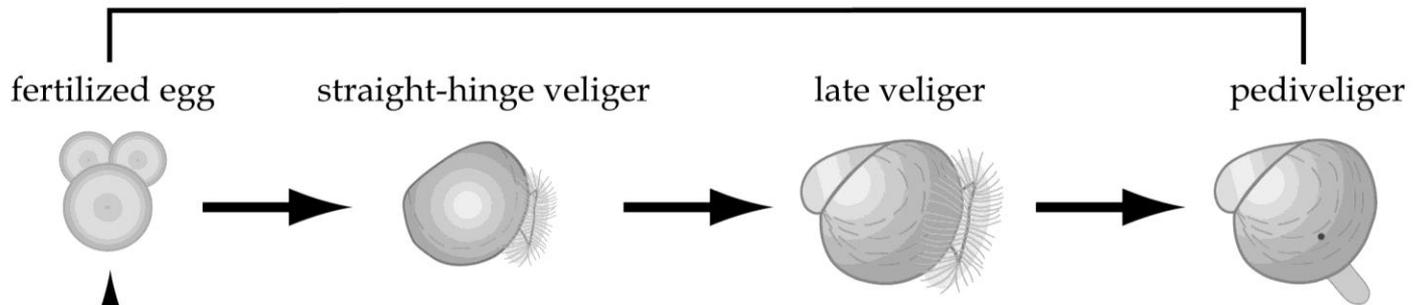
Habitat loss



Oyster life cycle

approximately 2 weeks

Illustration credit: score.dnr.sc.gov



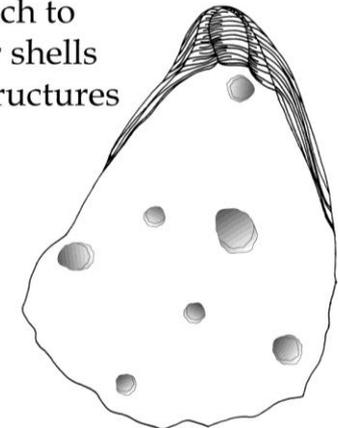
Oyster Life Cycle

egg and sperm



adult males
and females

spat attach to
old oyster shells
or other structures



1 - 3 years

Why oyster shells are important

- Larval oysters are free swimming in the water column
- After 2-3 weeks in the water, the larval oysters settle out of the water and require a hard substrate such as oyster shell to cement themselves, form a shell and grow
- If the larval oysters do not find a hard substrate to attach to, they will die

Harvested oysters = harvested habitat

Why put it here?



Photo credit: momgoesgreen.com

When you can put it here!



Photo credit: fws.gov

Our solution

Partners



Oyster Shells



to form HABITAT!

Photo credit: Jennifer Pollack

The process:

1. Oysters are harvested by oyster dredge



Photo credit: statesman.com

11 Oct 2010

Pollack et al., CBBF Coastal Issues Forum

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2. Oysters are sold & eaten in restaurants



3. Shucked oyster shells are reclaimed...



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© Larry Hyde

... and stockpiled

© Allison Knight



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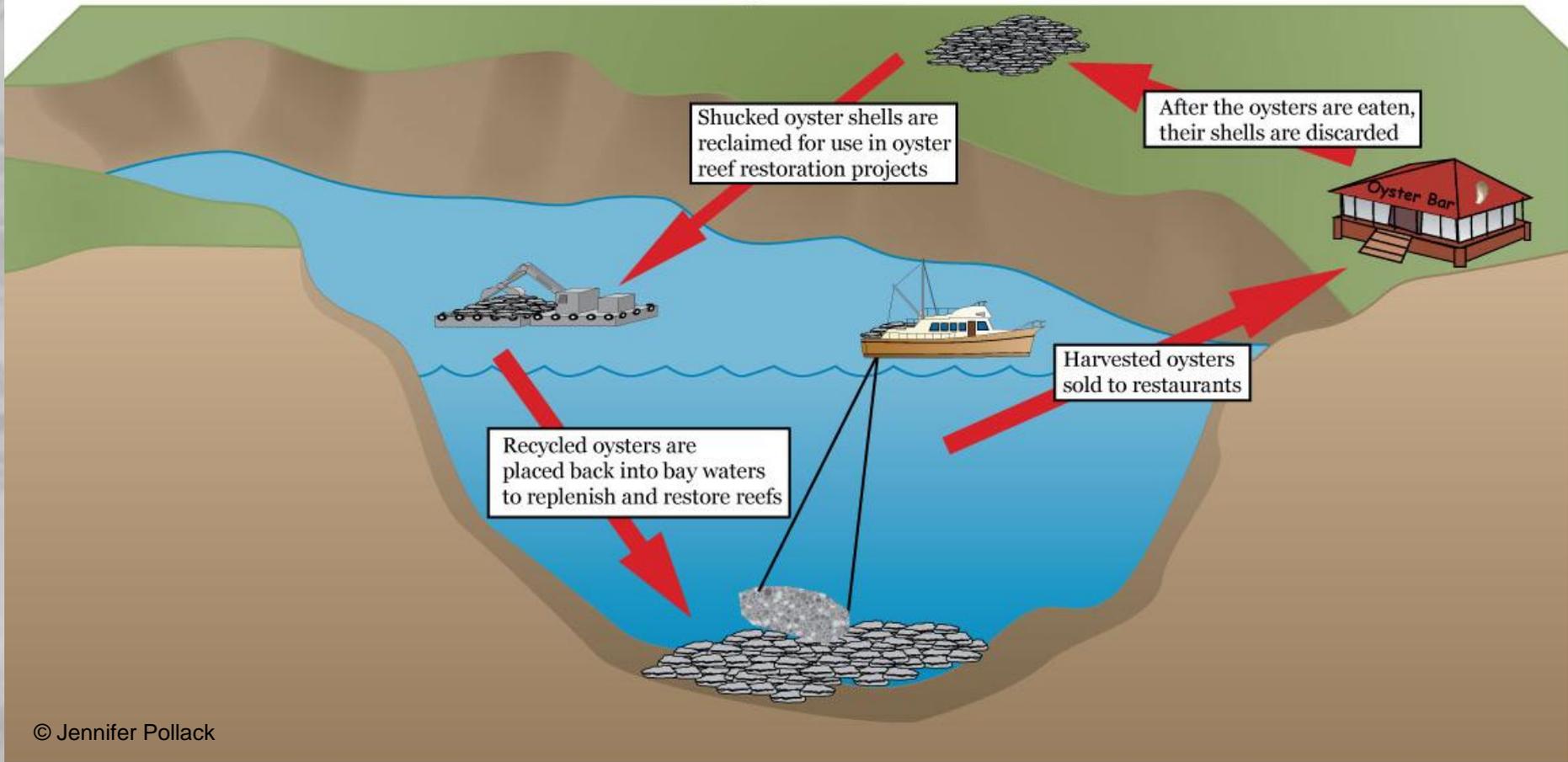
The process:

4. Reclaimed shells are put back in the bay to create and restore oyster habitat

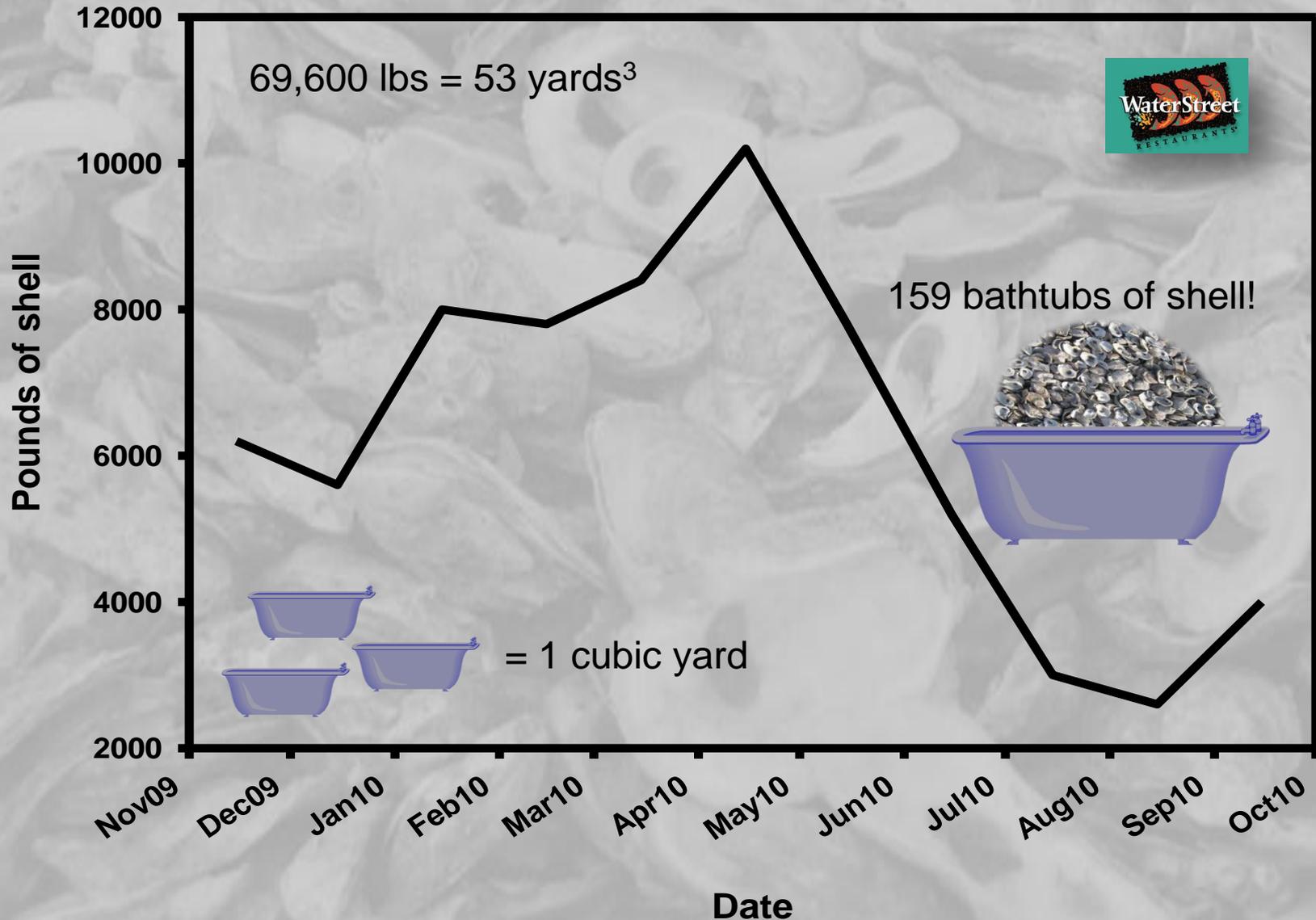


Photo credit: Texas Parks and Wildlife Department

Oyster shell recycling: How the process works



How many shells have we reclaimed so far?

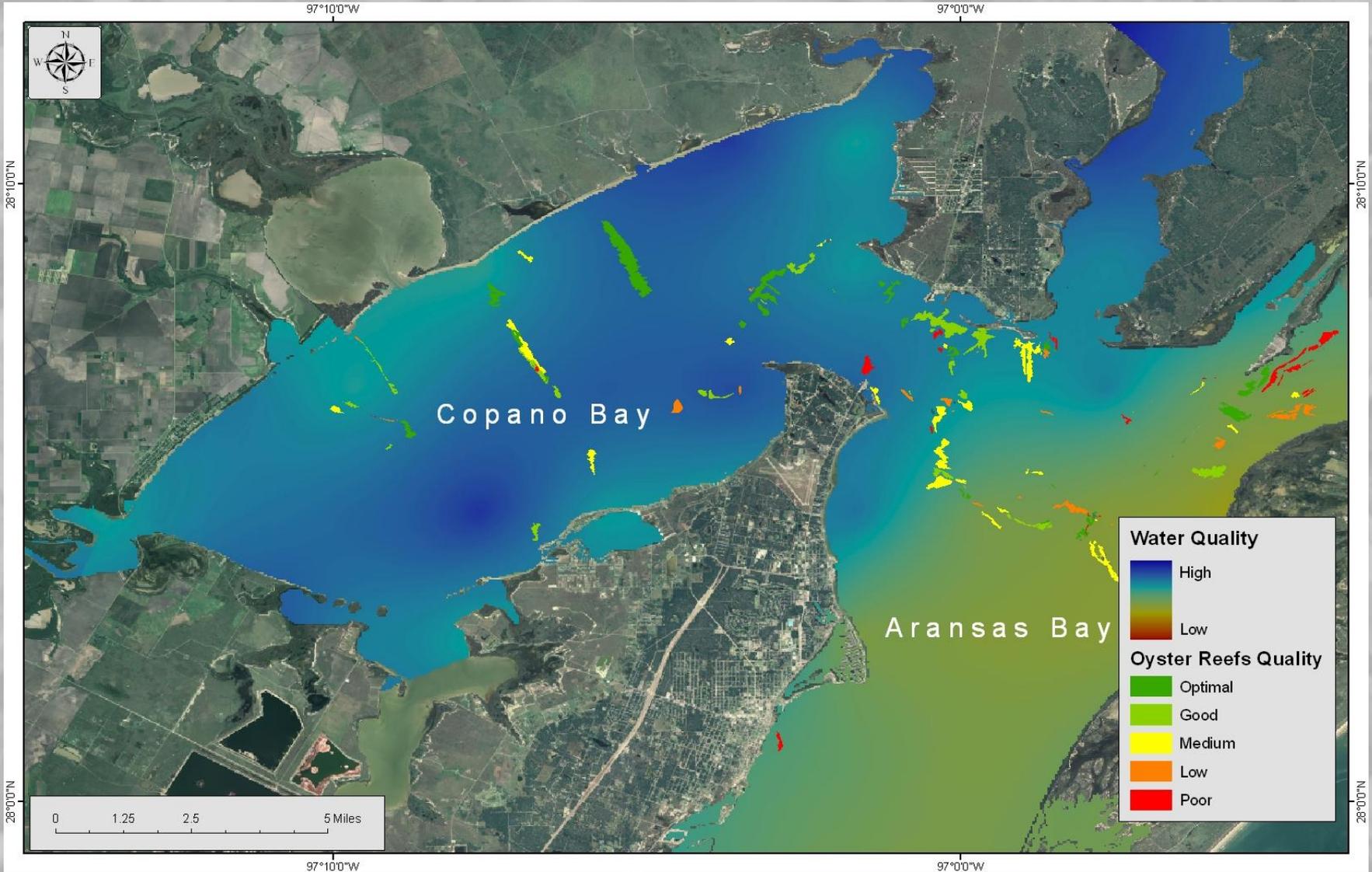


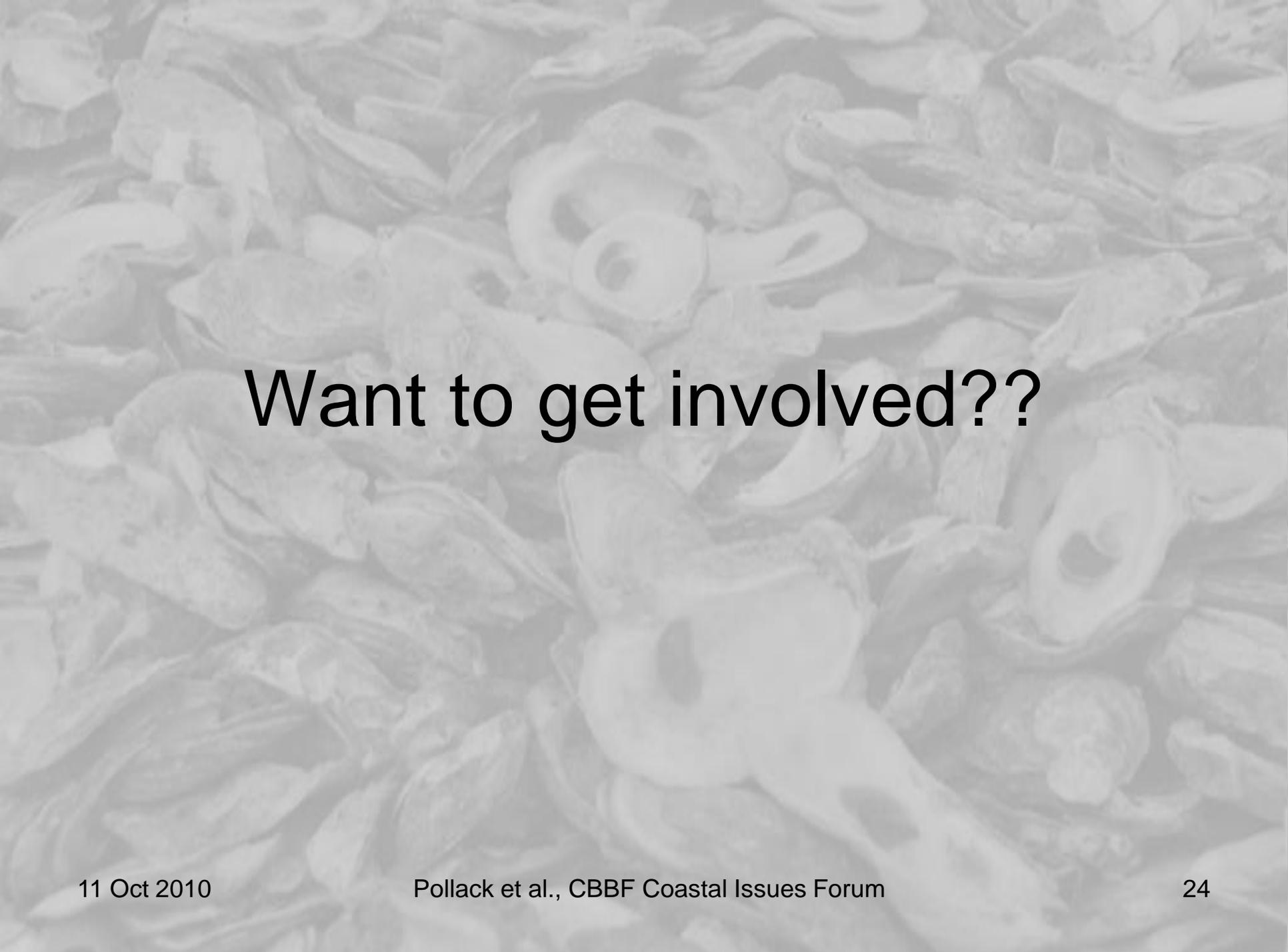
What's next: Oyster restoration

Identify areas where:

1. Live oyster abundance is HIGH
2. Disease is LOW
3. Spat abundance is HIGH
4. Salinity is MODERATE
5. Temperature is MODERATE
6. Dissolved oxygen is HIGH

Composite map predicting suitability for future restoration



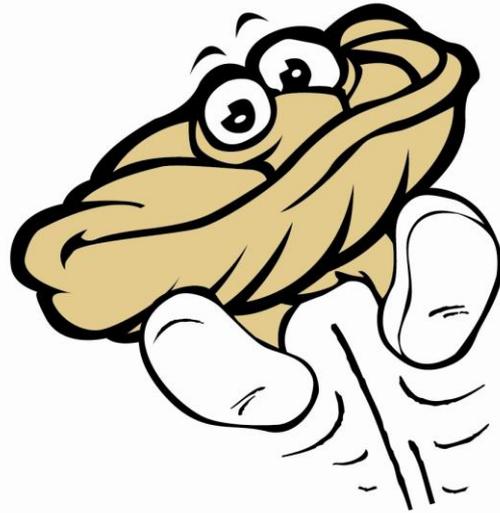


Want to get involved??

Community shell-bagging events



Photo credits: <http://score.dnr.sc.gov>, <http://gbgm-umc.org>, <http://www.fgcu.edu>



**SINK
YOUR
SHUCKS**

It's Habitat Forming

Volunteer opportunities
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361.825.2000

oysterrecycling.org

Please patronize our partner restaurant



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